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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,389	06/15/2000	Kenji Nagata	F-6560	9122

7590

10/21/2003

Jordan and Hamburg
122 East 42nd Street
New York, NY 10168

EXAMINER

NGUYEN, BINH AN DUC

ART UNIT	PAPER NUMBER
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3713

17

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/594,389

Applicant(s)

NAGATA ET AL.

Examiner

Binh-An D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,11-16,18,19 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11-16,18,19 and 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Information Disclosure Statement and Amendment filed in Papers No. 14 and 16, May 23, 2003 and July 28, 2003, respectively, have been received. According to the Amendment, new claims 31-33 have been added. Currently, claims 1, 4-9, 11-16, 18, 19, and 21-33 are pending in the application. Acknowledgment has been made.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 6-8, 11-16, 19, 21-25, 28-30, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess (5,695,859) or Burgess (5,828,289) in view of Burgess (6,114,645).

Burgess '859 or '289 teaches an input apparatus for game systems comprising: an operation member (200, 210) adapted to receive a load (Figs. 15 and 16); and detection unit (130) capable of outputting a predetermined detection signal in response to changes in load in a predetermined direction in relation to the operation member, the detection unit including a sensing element (electrodes 132 and 135) and a coating member made of elastic material (9:9-12 and 10:38-48), the coating member coating the sensing element and functioning as a medium to transmit the load applied to the operation member to the sensing element, the coating member being arranged to

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contact the operation member and support the operation member in the predetermined direction (see Figs. 11- 13 and 10:22-65); a plurality of detection sensors arranged such that the operation member (frame cover plate 127) is supported at a plurality of points around an outer circumference thereof (Figure 11); the coating member includes a protrusion (131e) for limiting a position to which the load toward the sensing element is transmitted into a certain range; the protrusion is arranged on an outer surface of the coating member; a stopper (struts 137) for limiting displacement of the operation member in relation to the predetermined direction in a certain range; at least an outer surface portion of the operation member is formed into a panel, the detection unit being arranged to contact the outer surface portion of the operation member, and the stopper is located closer to a center of the operation member than that of the detection unit; the stopper adjoins the detection unit; insulating means for separating the electrode plates from one another; the coating member being arranged to overlie an upper one of the plates and lie below one of the plates; the coating element defines an interior cavity and the sensing element being arranged in the cavity; the coating member includes a plurality of separate protrusions (Figs. 12 and 13); the coating member is elongate and the protrusion extends longitudinally along the coating member. See also Figs. 1-17 and columns 1-15.

Burgess '859 or '289 does not explicitly teach sensing element includes a pair of electrode plates arranged to contact or separate from each other according to the load. Burgess '645, however, teaches sensing element includes a pair of electrode plates

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arranged to contact or separate from each other according to the load, see Fig.4 and columns 7:37-8:29.

Note that, the limitation of a frame defining a support surface for supporting a detection unit (claim 14) is considered as any platform in which a detection unit can be placed, e.g., placing the input apparatus of Burgess on a table or a chair, etc. (which structurally has frame and support surface), thus, it would have been obvious to use any type of platform for supporting the detection unit. Further, the limitations of operation member is a foot panel on which a player is able to stamp (claim 11) and sensing elements comprising a pair of opposed metallic plates (claims 12 and 15) are respectively inherent from Burgess' application for devices such as feedback devices, toys, computer input devices, etc. (see Burgess '859, 15:13-24), and further, utilizing metal foils or metal films for electrodes. Furthermore, the limitations of arrangement of stopper (claims 22, 23, 24) in different positions, and the protrusion being spaced from both longitudinal ends of the electrode plates (claim 19) are design choices since they do not bring unexpected results.

Regarding the limitations of detection units are elongate (claim 31), and arranging stopper externally from detection unit such that the operation member is in contact with the stopper upon application of the load in the predetermined direction, (claim 33), these are alternative design choices and conventional applications. See applicants' admitted conventional foot switch of Figures 10 and 11.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to further modify the electrodes of Burgess '859 or '289 with a pair of

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electrode plates, as taught by Burgess '645 to enhance the flexibility of a sensing unit of an input device.

4. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess (5,695,859) or Burgess (5,828,289) and Burgess (6,114,645) in further view of Saur et al. (6,110,073).

Burgess '859 or '289 and Burgess '645 teach all limitations in claims 1, 4, 6-8, 11-16, 19, 21-25, and 28-30.

Burgess '859 or '289 and Burgess '645 do not explicitly teach the limitations wherein protrusion is arranged on an inner surface of the coating member; and protrusion arranged on at least one of an outer surface and an inner surface of coating member. Saur et al., however, teaches foot pads 18 having protrusions arranged on an inner surface of the coating member (Figs. 2 and 7) and protrusion arranged on at least one of an outer surface and an inner surface of coating member (Figs. 6 and 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Burgess's inner surface of coating member with protrusions thereof, as taught by Saur et al., to enhance a better switching function for a sensing unit.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess (5,695,859) or Burgess (5,828,289) and Burgess (6,114,645) in further view of applicant's admitted prior art (Figures 10 and 11).

Burgess '859 or '289 and Burgess '645 teach all limitations in claim 14. Burgess '859 or '289 and Burgess '645 do not explicitly teach a foot switch comprising at least a sustaining plate arranged on a frame and included a raised, stopper portion for limiting displacement of operation member, and a sensing unit being placed over the sustaining plate. Applicant's admitted prior art, Figures 10 and 11, however, comprise a foot switch comprising a sustaining plate (3a) arranged on a frame and included a raised, stopper portion (4), and a sensing unit being placed over the sustaining plate. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the input apparatus as taught by Burgess by utilizing well known design knowledge, to come up with better mechanical interfaces design for an input apparatus' foot switch.

6. Claims 9, 27, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess (5,695,859) or Burgess (5,828,289) in view of Hector et al. (4,720,789).

Burgess '859 or '289 teaches an input apparatus for game systems comprising: an operation member (200, 210) adapted to receive a load (Figs. 15 and 16); and detection unit (130) capable of outputting a predetermined detection signal in response to changes in load in a predetermined direction in relation to the operation member, the detection unit including a sensing element (electrodes 132 and 135) and a coating member made of elastic material (9:9-12 and 10:38-48), the coating member coating the sensing element and functioning as a medium to transmit the load applied to the operation member to the sensing element, the coating member being arranged to contact the operation member and support the operation member in the predetermined

direction (see Figs. 11- 13 and 10:22-65); a plurality of detection sensors arranged such that the operation member (frame cover plate 127) is supported at a plurality of points around an outer circumference thereof (Figure 11); a plurality of stoppers (struts 137) being arranged inward (Burgess '859, Figures 15 and 16); at least an outer surface portion of the operation member is formed into a panel, the detection unit being arranged to contact the outer surface portion of the operation member, and the stopper is located closer to a center of the operation member than that of the detection unit; coating member being arranged to contact operation member and support the operation member (Figure 12). See also Figs. 1-17 and columns 1-15. Note that, the limitation of operation member is a foot panel on which a player is able to stamp (claim 11) is inherent from Burgess' application for devices such as feedback devices, toys, computer input devices, etc. (see Burgess '859, 15:13-24).

Burgess '859 or '289 does not explicitly teach a base having a plurality of panel-attaching sections; an operation member arranged at each of said panel-attaching sections; a plurality of detection units arranged at each of said panel-attaching sections.

Hector et al., however, teaches a video game floor controller with position indication foot pads comprising a base having a plurality of panel-attaching sections; an operation member arranged at each of said panel-attaching sections; a plurality of detection units arranged at each of said panel-attaching sections; and detection unit comprises a plurality of detection units. See Figures 1 and 2.

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Regarding the limitation of arranging stoppers externally of detection units (claim 32), this is an alternative design choice and well known conventional application. See stopper (4) from applicants' admitted conventional foot switch of Figure 11.

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the input apparatus as taught by Burgess with a video game floor controller with position indication foot pads of Hector et al. to enhance sensitivity of detection in video input device.

7. Applicant's arguments filed July 28, 2003 have been fully considered but they are not persuasive. Burgess '859 or '289 does teach the limitation of a plurality of detection sensors arranged such that the operation member (frame cover plate 127) is supported at a plurality of points around an outer circumference thereof (Figure 11).

Regarding the limitation of the protrusion being spaced (or shifted) from both longitudinal ends of the electrode plates (claims 1, 14, and 19) (applicants' response, page 4, lines 2-17 and page 5, line 18 to page 7, line 2), this is design choice since it do not bring unexpected results in sensing a desired point of contact.

Further, regarding applicants' remark that the lever 200 is not in contact with the detection unit (mat switch 30) in absence of a downward force on the arm 202 of the lever 200 (applicants' response, page 5, lines 11-17), this remark is true according to the illustration, however, when a downward force is present, as does applicants' claimed operation member adapted to receive a load, the arm 202 of the lever 200 contacts the detection unit to activate its sensor.

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In response to applicants' remark of page 6, lines 12-19, according to Figure 14 of Burgess '859 's or '289's, ribs 131e do limit the position to which the load toward the sensing element is transmitted.

Furthermore, applicants' arguments regarding claims 5, 9, 18, 26, 27 (applicants' response, page 7, line 3 to page 9, line 6) are not persuasive because the references of Saur et al. and Hector et al. have not been individually cited under 35 U.S.C 102 but they have been combined with Burgess references under 35 U.S.C 103(a) to meet applicants' claimed limitations.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh-An D. Nguyen whose telephone number is 703-305-5713. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on 703-308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

BN


Teresa Walberg
Supervisory Patent Examiner
Group 3700